(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 6 May 2005 (06.05.2005)

PCT

(10) International Publication Number WO 2005/040398 A2

(51) International Patent Classification7:

C120

(21) International Application Number:

PCT/US2004/034605

(22) International Filing Date: 18 October 2004 (18.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10/686,904	16 October 2003 (16.10.2003)	US
10/722,154	25 November 2003 (25.11.2003)	US
10/721,557	25 November 2003 (25.11.2003)	US
10/721,678	25 November 2003 (25.11.2003)	US

- (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 1111 Franklin Street, 5th Floor, Oakland, CA 94607-5200 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CROWE, John, H.

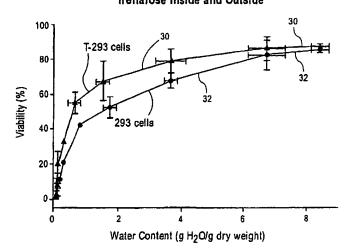
[US/US]; 1111 Cottonwood Ct., Davis, CA 95616 (US). TABLIN, Fern [US/US]; 608 Huble Street, Davis, CA 95616 (US). OLIVER, Ann, E. [US/US]; 874 Parklin Avenue, Sacramento, CA 95831 (US). JAMIL, Kamran [US/US]; 1180 Matmor Road, #382, Woodland, CA 95776 (US). MA, Xiaocui [CN/US]; 690 Alvarado Avenue, Apt. #34, Davis, CA 95616 (US). CLEGG, James, S. [US/US]; 211 Condor Street, Bodega Bay, CA 94923 (US). WOLKERS, Willem [NL/NL]; Riemsdijkstraat 80, NL-6701 BC Wageningen (NL). HTOO, Thurein [US/US]; 425 Washington Blvd., Apt. 3706, Jersey City, NJ 07310 (US).

- (74) Agents: HYMAN, Laurence, J. et al.; Townsend and Townsend and Crew LLP, 2 Embarcadero Center, 8th Floor, San Francisco, CA 94111 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

[Continued on next page]

(54) Title: METHODS FOR PRESERVING NUCLEATED MAMMALIAN CELLS

Viability of 293 Cells During Drying +/- Transfection with p26 Trehalose Inside and Outside



(57) Abstract: Methods and compositions are provided for increasing the survival of nucleated mammalian cells following drying and rehydration. The methods include introducing a disaccharide such as trehalose into said cells, optionally including heat shock proteins, apoptosis inhibitors, and arbutin, drying said cells, and rehydrating them. The invention further provides nucleated mammalian cells that have increased capacity to survive, divide and, in some cases, differentiate, following drying and rehydration. The cells comprise a disaccharide and one or more of the following: a heat shock protein, an apoptosis inhibitor, and arbutin.



KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

- of inventorship (Rule 4.17(iv)) for US only

Published:

- without international search report and to be republished upon receipt of that report
- (48) Date of publication of this corrected version:

25 August 2005

(15) Information about Correction: see PCT Gazette No. 34/2005 of 25 August 2005, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.